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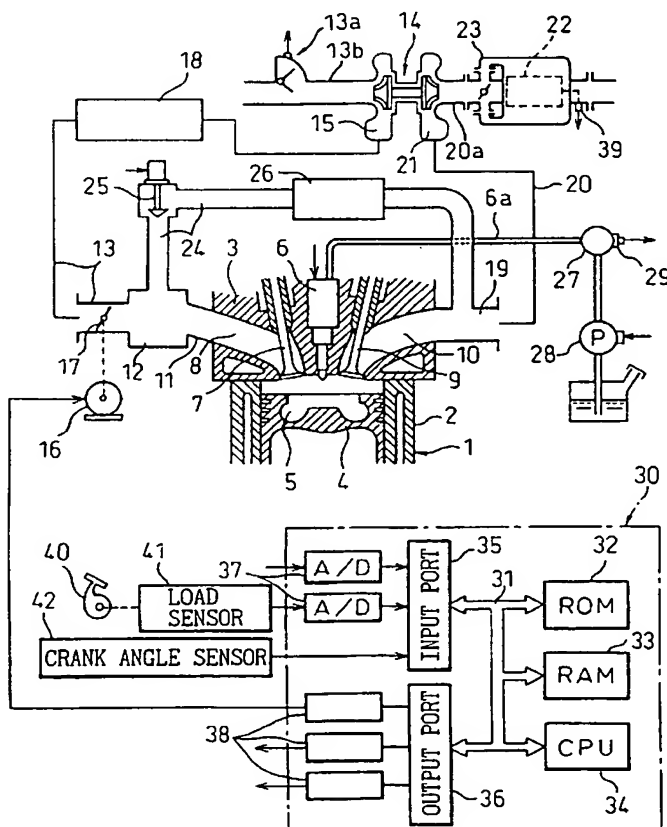
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[Continued on next page]

(54) Title: EXHAUST GAS PURIFICATION DEVICE



(57) Abstract: An exhaust gas purification apparatus, for an engine having a combustion chamber, comprising an exhaust passage, a particulate filter arranged in the exhaust passage for removing particulate in exhaust gas exhausted from the combustion chamber by oxidation, and a device for controlling the characteristics of the exhaust gas flowing into the particulate filter, wherein, when the judging means judges that the particulate filter will be deteriorated by heat, the controlling device changes the characteristics of the exhaust gas flowing into the particulate filter to prevent the particulate filter from being deteriorated by heat.

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# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>J759-PCT</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/JP 01/ 06350</b>	International filing date (day/month/year) <b>23/07/2001</b>	(Earliest) Priority Date (day/month/year) <b>24/07/2000</b>
Applicant <b>TOYOTA JIDOSHA KABUSHIKI KAISHA et al.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

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2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1

☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 01/06350

## Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

An exhaust gas purification apparatus, for an engine (1) having a combustion chamber (5), comprising an exhaust passage (10), a particulate filter arranged in the exhaust passage for removing particulate in exhaust gas exhausted from the combustion chamber by oxidation, and a device (30) for controlling the characteristics of the exhaust gas flowing into the particulate filter, wherein, when the judging means judges that the particulate filter will be deteriorated by heat, the controlling device changes the characteristics of the exhaust gas flowing into the particulate filter to prevent the particulate filter from being deteriorated by heat.

# INTERNATIONAL SEARCH REPORT

International Application No

PC1/JP 01/06350

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F01N3/023 F01N11/00 F01N3/035 F01N3/08 F01N3/031

According to International Patent Classification (IPC) or to both national classification and IPC.

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, WPI Data, EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 774 424 A (PEUGEOT) 6 August 1999 (1999-08-06)	1,6,7
Y	page 2, line 31 -page 4, line 1; figure ---	15,16
Y	EP 0 984 142 A (TOYOTA MOTOR CO LTD) 8 March 2000 (2000-03-08)	15
A	abstract; figures 1-3 ---	21
Y	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 06, 30 April 1998 (1998-04-30) & JP 10 054268 A (TOYOTA MOTOR CORP), 24 February 1998 (1998-02-24) abstract --- -/--	16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
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- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

International Application No

PC1/JP 01/06350

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 02, 29 February 1996 (1996-02-29) & JP 07 269328 A (NISSAN MOTOR CO LTD), 17 October 1995 (1995-10-17) abstract	1
A	EP 0 703 352 A (TOYOTA MOTOR CO LTD) 27 March 1996 (1996-03-27)	

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 01/06350

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
FR 2774424	A	06-08-1999	FR 2774424 A1	06-08-1999
EP 0984142	A	08-03-2000	EP 0984142 A1	08-03-2000
			WO 9848153 A1	29-10-1998
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